REMARKS/ARGUMENTS

The Examiner is thanked for the review of the application.

In the specification, the paragraph at page 2 beginning at line 9 has been amended to include the serial number of the one co-pending and concurrently filed application.

In the abstract, the paragraphs at page 169 beginning at line 7 have been amended to comply with MPEP 608.01(b).

Claims 1-8 remain in this application. New Claims 9-17 have been added. Claims 1, 2, 5-8 have been amended. No new matter has been added.

In a Non-Final Office Action dated May 25, 2005 the Examiner has rejected Claims 5-8 under 35 U.S.C. 101 stating that "the claimed invention is directed toward non-statutory matter. The basis of this rejection is set forth in a two-prong test of: (1) whether the invention is within the technological arts; and (2) whether the invention produces a useful, concrete, and tangible result. For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract that do not apply, involve, use, or advance the technological arts fail to promote the 'progress of science and the useful arts' (i.e. the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts. In the present case, claim 5 recites a method for creating a promotional calendar. The method comprises models using these models to determine combinations of offers and promotional events. None of these elements contain or require any specific technology. Therefore each of the elements in the body of the claim could be implemented and used without the use of technology and therefore the claim is not considered within the technological arts. Claims 6 and 7 depend from claim 5 and contain the same deficiencies. Claim 8 also directed towards a method of creating an event calendar and contains equivalent elements to claims 5-7. Therefore, since none of the elements of claim 8 require technology to be used or implements, claim 8 is not considered within the technological arts.

Although the claimed invention does produce a useful, concrete, and tangible result, since the claimed invention is not within the technological arts, as explained above, claims 5-8 are deemed to be directed towards non-statutory subject matter."

Method Claims 5-8 have all been amended to recite "computer-implemented method" and hence are now all compliant with 35 U.S.C. 101.

In the same Office Action the Examiner has also rejected Claims 5 and 8 under 35 U.S.C. 112, second paragraph, stating that it is "indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 5 and 8 are considered indefinite because the preamble of each claim does not match the steps in the body of the claim. For example, the preamble states that claim 5 is a 'method for creating a promotional event calendar', however the elements in the body of the claim do not contain any recitation concerning a creation of a calendar. Claim 8 contains the same deficiency. Therefore, claims 5 and 8 are indefinite because the applicant has not particularly pointed out and distinctly claimed his invention. For examination purposes, examiner has considered the selected combinations of the offers and promotional events as the created event calendar in as much as this selection is a planning of events for future promotions."

Amended base Claims 5, 8 now recite "to create a promotion event calendar". Hence the preambles of Claims 5, 8 are now consistent with their respective bodies, and are now compliant with 35 U.S.C. 112.

The Examiner has also rejected Claim 2 stating that it is "because of the following informalities: Claim 2 ends with two punctuation marks. Appropriate correction is required." Accordingly, Claim 2 has been amended to delete the extra punctuation mark.

The Examiner has also rejected Claim 1-2, 4-8 are rejected under 35 U.S. C. 102(a) and (e) as being anticipated by Cunningham et al. (US 6,029,139).

Regarding Claim 1, the Examiner has stated that, "Cunningham et al. teaches an apparatus for creating a promotional event calendar, comprising: an econometric engine for modeling sales as a function of price to create a sales model (See column 2, lines 65-column 3,

line 3, column 5, lines 13-23, column 6, lines 1-20, column 8, lines 1-10, column 10, lines 55-65, which discusses modeling sales using price and sales information); a financial model engine for modeling costs to create a cost model (See column 5, lines 14-41, column 8, lines 1-12, column 10, lines 55-65, column 11, lines 65-column 12, line 5 and lines 45-52, which discusses modeling costs using cost data); a promotional engine coupled to the econometric engine, and financial model engine to receive input from the econometric engine and financial model engine, wherein the promotional engine analyzes a plurality of offers and a plurality of promotional events to optimally match offers with promotional events to create a promotional event calendar (See figure 2, column 2, lines 24-31, column 5, lines 13-42 and 59-65, column 11, lines 35-45 and 65-column 12, line 15 and lines 45-52, wherein an engine uses the output of the other engines to analyze and optimize promotional options to match offers and events (i.e. prices with displays, for example) this creates a schedule of events for future promotions)."

Cunningham '139 teaches optimization of the "promotional sale of a product, a product segment, or a category which may take into account related products or competing products comprising means for generating a three-dimensional data structure corresponding to the sale history for a product" (see Abstract and title) (emphasis added). "For example, the user may want to create a promotional plan that maximizes the volume of a product sold for a given promotional budget." (Col. 5, lines 28-30). Further, several base claims of Cunningham recite in their respective preambles, for example, in Claim 3 "optimizing the promotional sale of a manufacturer's product segment", in Claim 4 "optimizing the promotional sale of a product segment for a particular manufacturer", in Claim 9 "automatically optimizing the promotional sale of a manufacturer's product segment", and in Claim 10 "automatically optimizing the promotional sale of a product segment for a particular manufacturer" (emphasis added).

Hence Cunningham '139 appears to address the problem a product manager of a manufacturer has in figuring out how to promote the **manufacturer's product**(s) based on "historical data". As a result, the promotional plan generated by Cunningham may **not** be suitable and/or may **not** be optimized for a particular retailer's store or chain of stores.

In contrast, Applicants' present invention teaches the creation of a "promotional event calendar subject to the conditions from the at least one store" as recited by amended base Claim 1 (emphasis added). As such, Applicants' claimed invention is directed at solving the optimization at the **store level**, i.e., the unique problem a retailer has in figuring out how to

promote products from several different manufacturers/suppliers subject to conditions which are dictated in part by the retailer's particular store(s) characteristics.

Support for this novel feature can be found in Applicants' specification, page 130, line 10-12, which states "stores 2124 may use the support tool 2116 to provide information regarding promotional events, offers and conditions to the promotional event calendar generating system 2110 (see step 2326 of Figure 23 and also Figure 21) (emphasis added). Support can also be found on page 164, lines 10-14 of the specification, which states "The preferred embodiment of the invention is able to provide a promotional event calendar on a store level. This is preferred, because the demand data for individual stores may indicate that a first store may maximize profits with a promotional event for a first product, while a second store may maximize profits with a promotional event for a second product." (emphasis added). In addition, step 228 of Applicants' Figure 2 also teaches "receive desired optimization rules from stores" (emphasis added).

As such, Claim 1 is allowable over the cited art since Cunningham '139 does not suggest nor disclose creating a "promotional event calendar subject to the conditions from the at least one store" as recited by independent Claim 1 as amended.

Regarding Claim 2, the Examiner has stated that "Cunningham et al. discloses wherein the promotional engine further comprises a temporary price reduction optimizing engine for optimizing temporary price reduction prices after the promotional events and offers have been selected (See column 8, lines 1-11, lines 35-42 and line 65-column 12, line 12 and lines 45-55, wherein a temporary price reduction is considered by the promotional engine)."

Regarding Claim 4, the Examiner has stated that "Cunningham et al. discloses wherein the promotional engine calculates the value of offers and the value of promotional events by using the financial model and sales model and selects combinations of the offers and the promotional events (See column 2, lines 24-31, column 5, lines 13-42 and 59-65, column 11, lines 35-45 and 65-column 12, line 15 and lines 45-52, wherein the promotion engine uses outputs of the financial and sales models to determine offer and promotion events)."

Claims 2, 4 are dependent on base Claim 1 and are also allowable over the cited art for at least the same reasons discussed above for Claim 1.

Regarding Claim 5, the Examiner has stated that "Cunningham et al. discloses a method for creating a promotional event calendar, comprising: creating a sales model (See column 2, lines 65-column 3, line 3, column 5, lines 13-23, column 6, lines 1-20, column 8, lines 1-10, column 10, lines 55-65, which discuss a sales model creating in the system that considers sales data); creating a cost model (See column 2, lines 45-52, column 5, lines 13-20 and 59-column 6, line 25, wherein a cost model is created in the system and considers cost data); determining the value of offers using the sales model and cost model (See column 5, lines 14-41, column 8, lines 1-12, column 10, lines 55-65, column 11, lines 65-column 12, line 5 and lines 45-52, which discuss determining the value of offers using the models); determining the value of promotional events using the sales model and cost model (See column 5, lines 25-41, column 6, lines 10-12, column 11, lines 65-column 12, line 5 and lines 45-52, which discuss the value of promotional events); and selecting combinations of the offers and promotional events based on the determined values (See column 1, lines 59-63, column 2, lines 24-31, column 5, lines 25-41, column 11, lines 65-column 12, line 5 and lines 45-52, wherein the combination of offers and promotional events are selected based on determined values)."

Independent Claim 5 has also been amended to recite "promotional event calendar subject to the conditions from the at least one store" and is allowable over Cunningham '139 for the same reasons Claim 1 is allowable.

Regarding Claim 6, the Examiner has stated that "Cunningham et al. wherein the creating of the sales model comprises: creating a plurality of demand groups, wherein each demand group is a set of at least one product and wherein at least one of the demand group is a set of at least two products (See column 2, lines 25-35, column 4, line 61-column 5, lines 8, column 6, lines 22-40 and 50-62, which discusses demand groups wherein a demand group is one product or more than one product, such as a segment or brand family); creating a sales model for each demand group (see column 2, lines 25-35, column 4, line 61-column 5, line 8, column 6, lines 22-40 and 50-62), wherein sales data is obtained and modeled for a demand group); and creating a market share model for each product in each demand group (See column 2, lines 45-57, column 4, line 61-column 5, line 12, column 6, lines 22-40 and 50-65, wherein a model is created concerning the market of the demand group)."

Regarding Claim 7, the Examiner has stated that "Cunningham et al. discloses the step of estimating net profit from the selected combination of offers and promotional events using the

sales model and cost model (See column 5, lines 30-56, column 6, lines 1-22, wherein the net profit is estimated by using optimization, the sales and cost models)."

Claims 6, 7 depend on allowable Claim 5, and hence are also allowable over the cited art for at least the same reasons base Claim 5 should be allowed.

Regarding Claim 8, the Examiner has stated that "claim 8 recites equivalent limitations to claims 5-7 above and is therefore rejected using the same art and rationale applied above."

Amended independent Claim 8 recite "promotional event calendar subject to the conditions from the at least one store" and is distinguishable over Cunningham '139. As such, Claim 8 is now allowable over the cited art for the same reasons Claim 1 is allowable.

The Examiner has rejected Claim 3 under 35 U.S.C. 103(a) as being unpatentable over Cunningham et al. (U.S. 6,029,139). Regarding Claim 3 the Examiner has stated that "Cunningham et al. teaches a promotional engine and outputting the optimized selection, as well as a client/personal computer (See figure 1, column 1, line 64-column 2, line 7, column 5, lines 14-45, column 11, lines 65-column 12, line 5 and lines 45-55). However, Cunningham et al. does not expressly disclose a support tool connected to the promotional engine that receives the promotional event calendar from the promotional engine and provides a user interface with the promotional event calendar to a client. Cunningham discloses a system with client/server architecture and models that optimize promotional planning to create the output of promotional events and offers. Using an user interface to more efficiently display output to a user (or client) of a system is old and well known in the computer arts. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to display the output and optimized results to the user of the system in order to more efficiently communicate the results to the user for whom the analysis was performed. See column 2, lines 24-31, which discusses creating a plan to better meet the user's goals and figure 1 and column 1, lines 64-column 2, line 7, which discuss a personal computer connected to the system.

Claim 3 depends on independent Claim 1 and is allowable over Cunningham '139 for at least the same reasons discussed above for Claim 1.

New dependent Claims 9, 11, 13 have been added and they all recite "wherein the conditions from the at least one store include ad space capacity" (emphasis added). Support for

Claims 9, 11, 13 can be found in Applicant's specification on page 146, where a description of equation 25 states "Event <u>Ad capacity</u> for unique products: The number of unique products advertised through an event must not exceed the ad capacity." (Emphasis added). Additional support can be found on page 132, lines 13-15, of the specification which states "constraints on the number of products that can be included arises due to <u>capacity</u> limitations on the total <u>ad space</u> and the total <u>display space</u> respectively" (emphasis added). Further, on page 138, line 4 of the specification, a definition 19 for EventAdBnd$e$ (Ad capacity of event e) is provided.

Since the cited art does not disclose nor suggest using "ad space capacity" as a condition for creating a promotional event calendar, new Claims 9, 11, 13 are also allowable for these additional reasons.

New dependent Claims 10, 12, 14 have also been added and they all recite "wherein the conditions from the at least one store include <u>display space capacity</u>" (emphasis added). Support for Claims 10, 12, 14 can be found in the specification on page 146, where a description of equation 24 states "Event <u>Display capacity</u> for unique products: The number of unique products on an event must not exceed the capacity of the event." (Emphasis added). Support can also be found on page 132, lines 13-15, of the specification which states "constraints on the number of products that can be included arises due to <u>capacity</u> limitations on the total <u>ad space</u> and the total <u>display space</u> respectively" (emphasis added). On page 138, line 3, the specification also provides a definition 18 for EventDisplayBnd$e$ (Display capacity of event e).

Since Cunningham '139 does not disclose nor suggest using "display space capacity" as a condition for creating a promotional event calendar, new Claims 10, 12, 14 are also allowable for these additional reasons.

New Claim 15 which depends on Claim 1, recite "wherein the matching of offers with promotional events includes <u>solving an integer problem</u>" (emphasis added). Similarly, new claims 16, 17 which depend on Claims 5, 8, respectively, recite "wherein the selection of combinations of offers and promotional events includes <u>solving an integer problem</u>" (emphasis added). Support for Claims 15-17 can be found on Applicants' specification page 132, lines 8-10, which states "Once the scores for each product and promotional vehicle are computed, products are assigned to each promotional vehicle within each defined event by <u>solving a binary integer problem</u>" (emphasis added) (see step 2404 of Figure 24). Page 133, line 20 to page 134,

line 2 of the specification provides further support, stating "This involves <u>solving an integer problem</u> to ensure that all events that each selected offer requires promotes at least one product from the offer in their ad and display vehicles" (emphasis added). The solution of the integer problem in the generation of the promotional event calendar is described in greater detail from page 131, line 3 through page 134, line 2 of the specification (see also steps 2404, 2408, 2412 of Figure 24).

In sum, base Claims 1, 5, 8 have been amended and are now believed to be allowable. Claims 1, 2, 5-8 have been amended and are now believed to be in allowable form. Dependent Claims 2-4, 6, 7, 9-17 which depend therefrom are also believed to be allowable as being dependent from their respective patentable parent claims 1, 5, 8 for at least the same reasons. Hence, Examiner's rejection of dependent Claims 2-4, 6, 7 are rendered moot in view of the amendment to independent Claims 1, 5. New Claims 9-17 have been added and are also believed to be allowable over the cited art.

Applicants believe that all pending Claims 1-17 are allowable over the cited art and are also in allowable form and respectfully request a Notice of Allowance for this application from the Examiner. Applicant hereby petitions for a 1 month extension of time within which to respond to the referenced Office Action. Credit Card Payment Form is enclosed. The commissioner is authorized to charge any additional fees that may be due or credit any overpayment to our Deposit Account No. 50-2766 (Order No. DEM1P006). Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at telephone number 925-570-8198.

LAW OFFICES OF KANG S. LIM
PMB 436
3494 Camino Tassajara Road
Danville, CA 94506
Voice: (925) 570 8198
Facsimile: (925) 736 3974

Respectfully submitted,

Kang S. Lim
Attorney for Applicant(s)
Reg. No. 37,491

CUSTOMER NO. 36088

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